

Chapter 15 Using Additional Software

PDF FILE CREATION

CREATING PDF FILES

Overview

Creating PDF Files are similar to sending prints to a plotter; the difference is that you are actually creating a file that can be view by pretty much anyone. The following are some simple steps in creating the PDF File through the single plot method.

- ♪ You will need to have Adobe Acrobat software on your machine or at a PC with this software to continue.

Step One: Open File and Select your Printer Driver

Open your plot drawing through the standard file opening process, place your fence on the plot boundary element of the border, and select **File>Print...** from the main menu.

Select the **PRINTER_STANDARD_DETAIL.PLT** driver file and select the appropriate pen table for the desired look of the plan you are printing.

- ♪ Selection of this plot driver will give you some weights and allows for selection of Adobe Distiller as a printer option.

Step Two: Setting up your Plot options

Select **File>Windows Printer...** from the menu of you **Print** dialog (Figure 15-1) or snap on the windows icon in the **Printer and Paper Size** area of the **Printer** dialog.

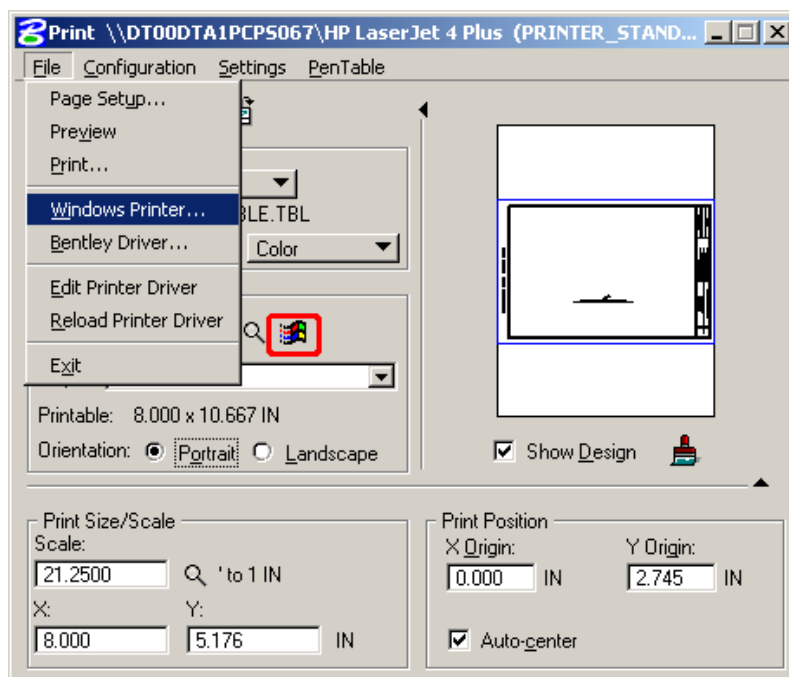


Figure 15-1: Print Dialog

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By default when selecting the printer driver file it will point to your default system printer. In the **Windows Printer** dialog box we are going to change this to the *Acrobat Distiller* printer (Figure 15-2). Next we need to select the **Preferences** button for setting our paper size.

♪ The **Acrobat Distiller** option is better for creating graphical PDF's where as the **Acrobat PDFWriter** is intended for a text documents with minimal graphics.

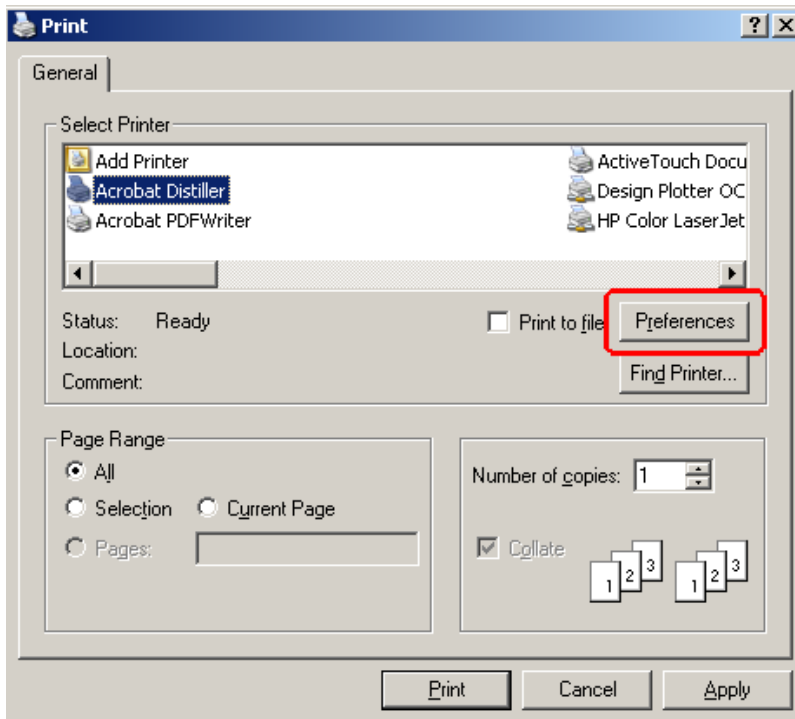


Figure 15-2: Windows Print Selection

Select the **Advanced...** button in the **Layout** tab of the **Printing Preferences** dialog (Figure 15-3).

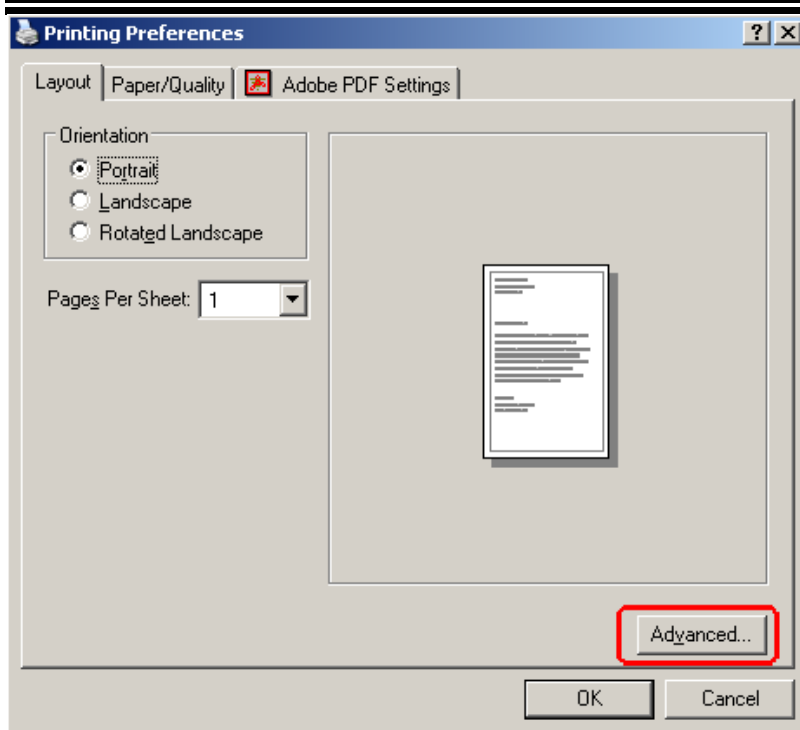
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Figure 15-3: Printing Preferences dialog

Select the **Paper Size:** pull down menu and pick **PostScript Custom Page Size** (Figure 15-4).

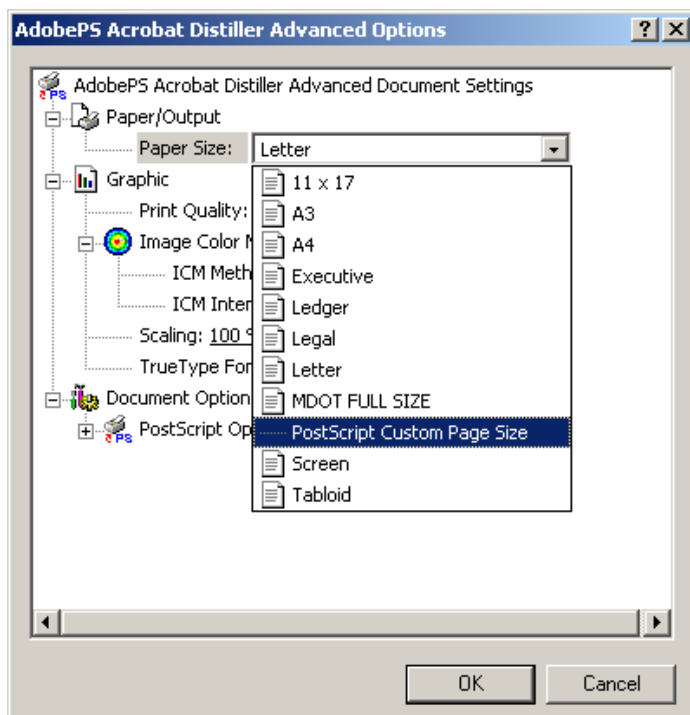


Figure 15-4: Advanced Options

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We will set the width to 34 inches and the height to 22 inches. Everything else should look like it does in the example (Figure 15-5).

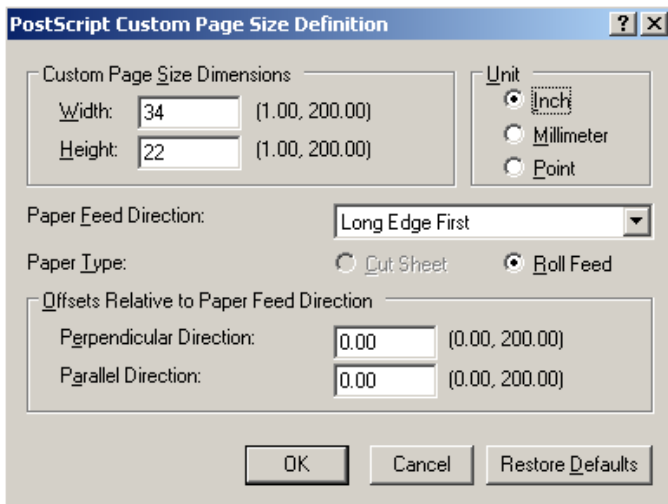


Figure 15-5: Page Size Definition

Press **OK** to each of the dialogs that are open and **Apply** to the **Print** dialog where you selected the **Acrobat Distiller** printer.

Press **Cancel** to return to MicroStations **Print** dialog.

Now the only other thing to do is to turn off your construction elements. We will do this through the **Print** dialog. Select **Settings>Print Attributes...** from the **Print** dialog menu. Toggle **Constructions** off and press **OK**.

Step Three: Plotting and Saving your PDF

We are now ready to plot so select your **Print** icon or **File>Print...** from the menu in the **Print Dialog**. You will see a **Save PDF File As Dialog** pop up asking you to save the PDF file. This by default points to the users Desktop.

- ♪ Take notice that in the **File name:** area (Figure 15-6), by default the file to be saved will have the same name as the MicroStation file that you have opened.

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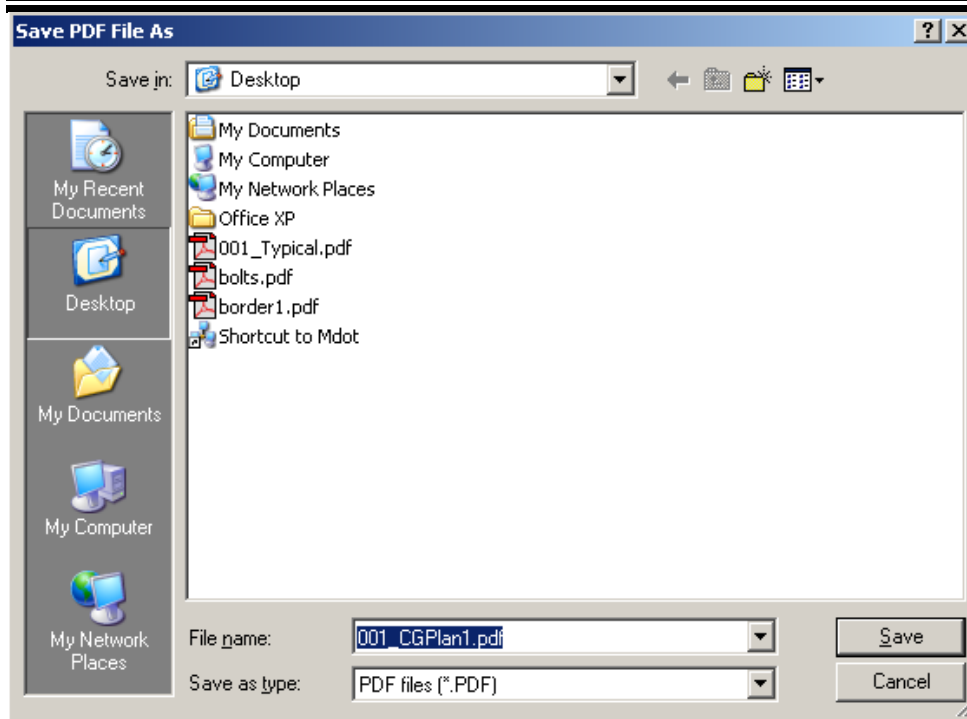


Figure 15-6: Save PDF File As

Using the **Save in:** pull down as shown (Figure 15-7), browse to your pin folder relative to the project you are printing.

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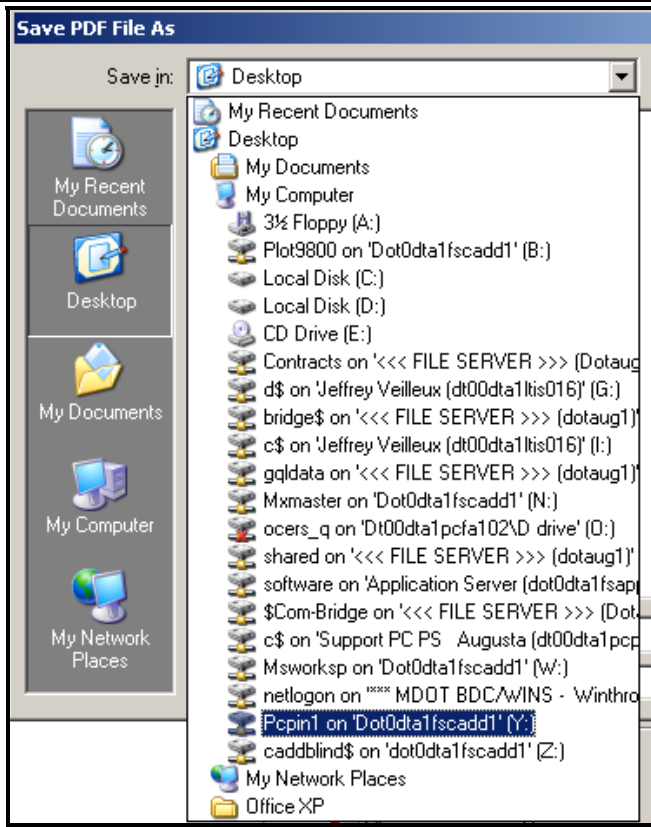


Figure 15-7: Location to Save PDF

Once you are in the **Msta** folder you will want to create a new folder called **PDF** by selecting the icon circled (Figure 15-8).

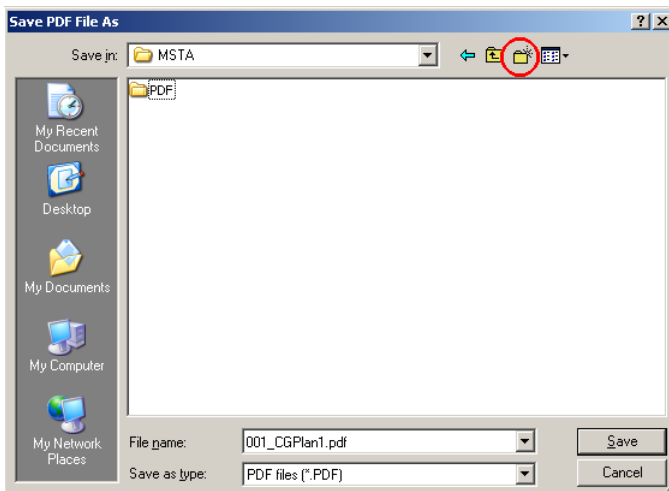


Figure 15-8: PDF Folder Creation

Now browse into this new folder (*PDF*) and click the **Save** button. This will be the place you will save your PDF files to so that everyone can access them over the network.

You will notice as the file is being save the Adobe software will open up the file just created. You can choose to close the software or just minimize it if you have more PDF

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Files to create. This will speed up the process so that the software doesn't have to reopen every time.

- ♪ If you have more than one page to create you can open your next file, place your fence around the border, turn off your *Construction Elements* and select **Print**. All the settings from the previous setup should have been maintained. If not then start over at **Step One**.

MAKING ONE PDF FILE OUT OF MULTIPLES

Overview

If you have more than one PDF File and you want to create a single PDF File to send via E-mail or post on the FTP Site then you will want to follow the next few steps in order to obtain this.

Step One: Opening and Saving a Master File

If you left the Adobe software running while creating your files then make the software active from the Task Bar. Close out all of the individual files except the first one created.

If you did not leave the software running then double click the icon on your Desktop (Figure 15-9), use the **File>Open** option and browse to the location where you saved the PDF Files and open the first one created.

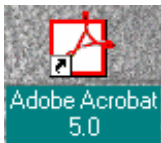


Figure 15-9: Icon

Next you will need to do a **File>Save As** (Figure 15-10).

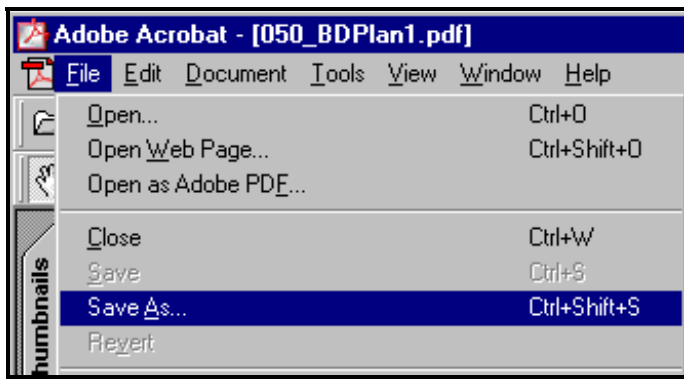


Figure 15-10: Select Save As from the File Menu

With the **Save As** dialog open you will want to rename the file. The example (Figure 15-11) shows the name **8979-PrelimPlans.pdf**. The name of the master should be relative to the PDF files you created. Select the **Save** option.

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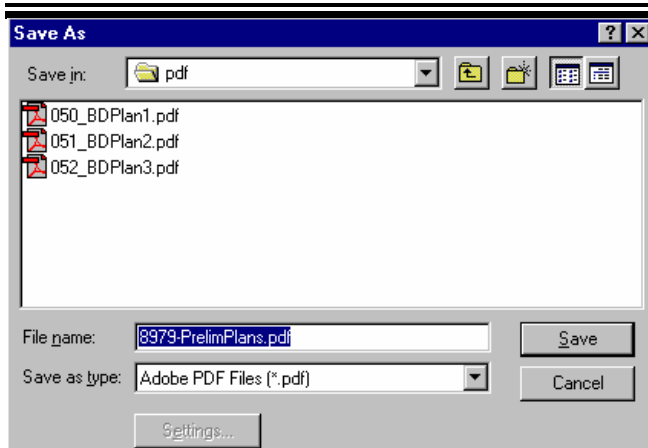


Figure 15-11: Save As

You will notice that now you are in the new file just created.

Step Two: Inserting PDF Files

From the menu select **Document>Insert Pages...** (Figure 15-12).

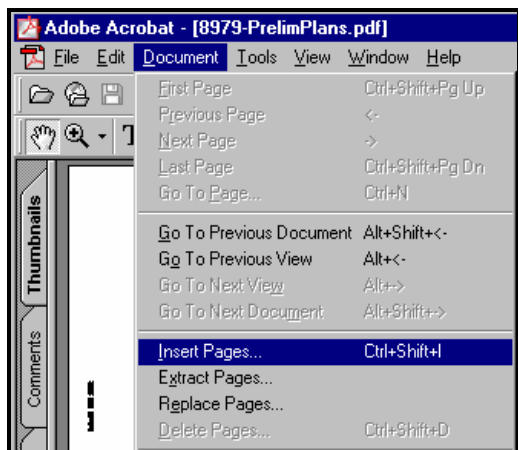


Figure 15-12: Insert Pages

Select the other PDF Files in the order they were created. By selecting in order you will keep the priority of your files in order within the master document. You will notice that in the **File name:** area (Figure 15-13) the files should be listed in reverse order from left to right. The Adobe software reads priority of inserts from right to left. Press the **Select** button to continue.

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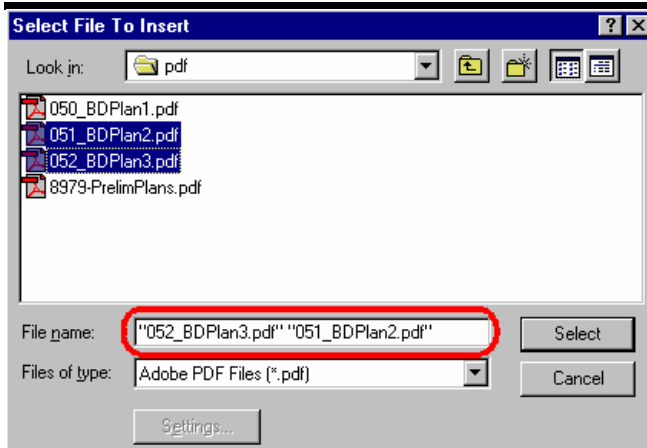


Figure 15-13: Select File to Insert

In the **Insert Pages** dialog (Figure 15-14) ensure that the **Location** is set to **After**, toggle the **Page** option to **Last** and press **OK**.

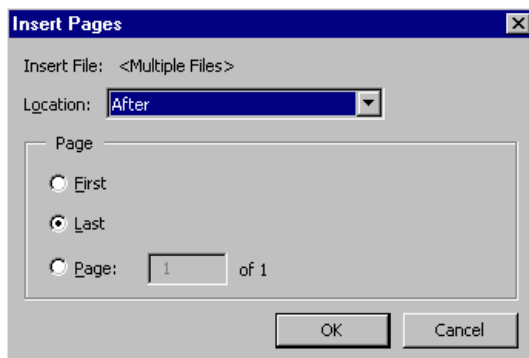


Figure 15-14: Insert Pages

From the main menu select **File>Save** to secure your master document.

Step Three: Verify Page Order

It is best to make sure your master document is set up the way you want before closing out. The easiest way is to utilize the navigation tools in the lower left hand of the view window. A brief explanation of the tools is as follows.

The following circled area (Figure 15-15) minimizes and maximizes the tabs in the **Adobe** software.



Figure 15-15: Tabs Expansion

The following enclosed area (Figure 15-16) tells you the page your on and the total number of pages within the master document. You can page through your document by using the directional arrow or go to the first or last page by pressing the arrow with the vertical line.

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Figure 15-16: Page Indicator

The next image (Figure 15-17) tells the page size of the PDF drawing.



Figure 15-17: Page Size

There are three different ways of viewing the pages within the master document. Working from left to right they are as follows (Figure 15-18):

Single page viewing

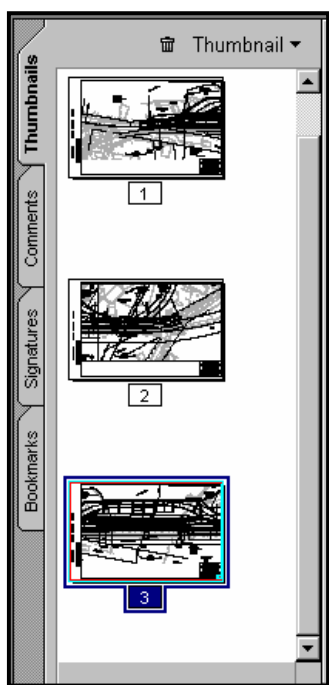
Stacked and scrollable page viewing

Multiple page viewing within one view



Figure 15-18: Page Viewing

If after viewing the pages you find that the order is incorrect, select the **Thumbnails** tab to the left.



With your mouse select the thumbnail that is out of place. With the left mouse button, click and hold on to the thumbnail, drag it between the thumbnails it should be and release the mouse button. You should see a horizontal separator line between the thumbnails.

Once you are confident that everything is the way you want then from the menu choose **File>Save** and exit out of the software.

SCANNING TO MICROSOFT WORD

SCANNING TO MICROSOFT WORD

Overview

This is one procedure of many on bringing a scanned image into Microsoft Word. This procedure was setup for the Utility maps to ensure a standard look every time. This procedure could be adapted for other procedures.

Step One: Logging In

Log into the Bridge general use machine as **Bridge General** with the password being **bridge**. Place the picture into the scanner.

Step Two: Open Template Document

Locate the *Utility Map Template.doc* icon on your desktop. Double click on this document icon (Figure 15-19). This is your standard template for utility maps.



Figure 15-19: Utility Map Icon

- ♪ If there is an image that had been saved to the template document, please delete it and save the file before going any further.

Step Three: Accessing the Scanner

Once you are in the template document you will need to select **Insert>Picture>From Scanner or Camera...** from the menu (Figure 15-20).

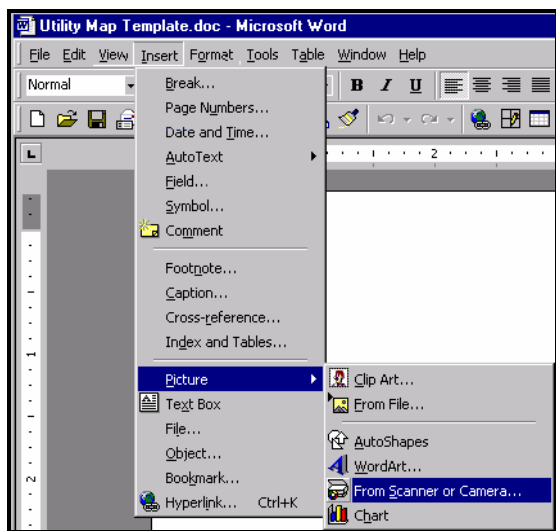


Figure 15-20: Microsoft Word Menu

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Next you will see the dialog box below (Figure 15-21). You will want to ensure that the **Resolution** is set to **Print Quality** and then select the **Custom Insert** button. This will start up the **HP PrecisionScan Pro** software and scan the image that was placed into the scanner.

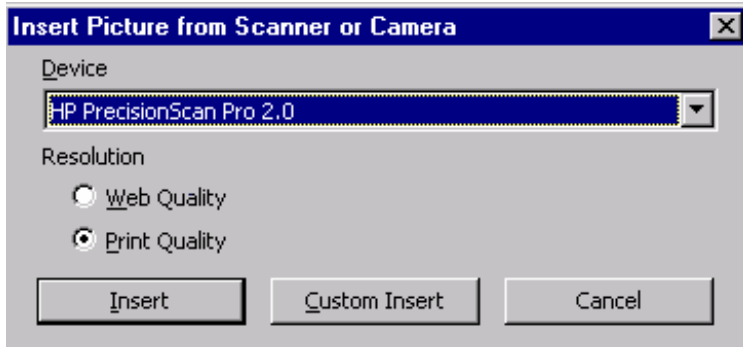
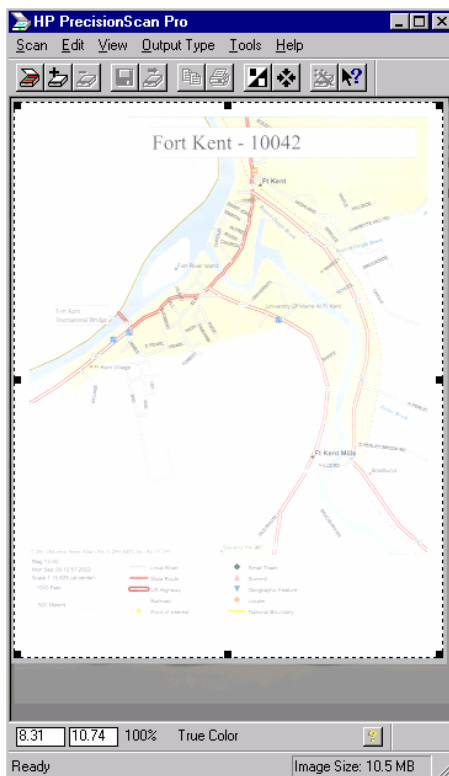


Figure 15-21: Picture from Scanner or Camera

Step Four: Setting the Image to return to Microsoft Word

Once the image is displayed we will need to clip what we want to send back to **Microsoft Word**. With your **left mouse button** you will need to click in the upper left corner of the image within the white space and while holding the left mouse button drag down to the lower right of the image within the white space and release the left mouse button. This will display handles around the area that will be returning to **Microsoft Word**.



♪ The reason why we do this is because the scanner creates gray space at the bottom and to the right of the image and this would be displayed in the word document. We want to have a completely white background.

If you notice the color of your image turns black and you want to maintain color, select **Output Type>True Color** from the menu (Figure 15-22).

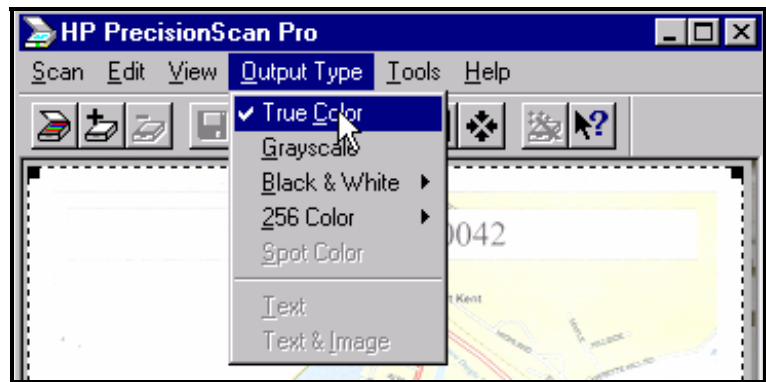


Figure 15-22: HP Precision Pro Output Type

Now we are ready to send the image back to our document. Select **Scan>Return to Microsoft Word** from the menu (Figure 15-23).

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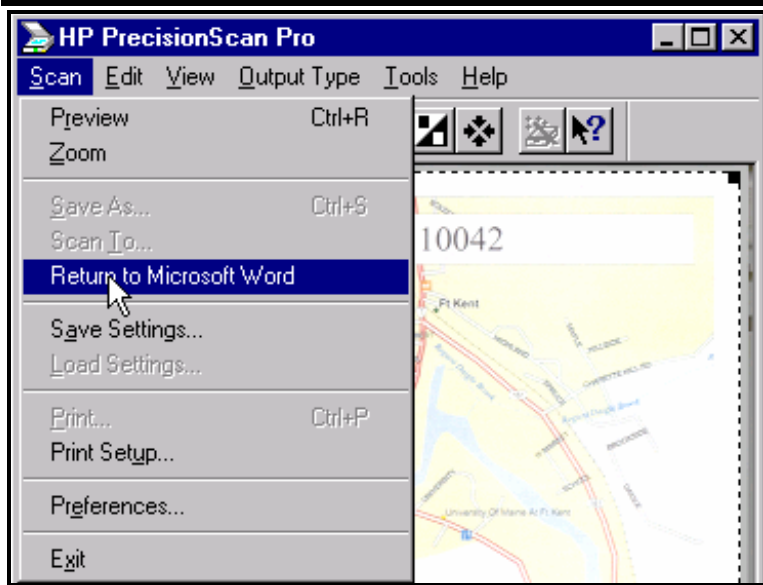


Figure 15-23: Return to Microsoft Word

Step Five: Saving the Document

Once the image is in our template document we will need to save it to a common area so that it can be retrieved once you return to your desk. We will want to select **File>Save As...** from the menu (Figure 15-24) so that we do not affect the master template.

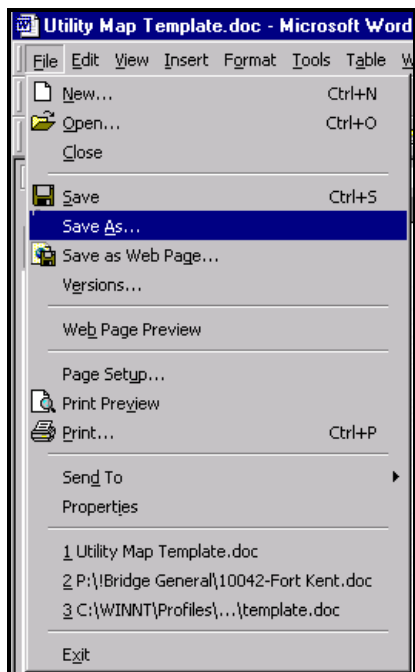


Figure 15-24: Save As Option

There has been a folder created on the network called **!Bridge General** for temporary

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storage of the document. Browse to **shared on 'dotaug1'(P:)/!Bridge General/**, name your document, and press the **Save** button.

You can now exit **Microsoft Word** and logoff the Bridge General Use P.C.

USING ESTIMATOR

USING ESTIMATOR

Introduction

This is a description of how to use the Estimator for producing a cost sheet for pricing a project.

Step One: Getting into Estimator

First you will need to double click on the icon on your desktop. Once in you will need to log in. For that you will need to know the user name and password. Those are **Beta** for the user name and **User** for the password (Figure 15-25).

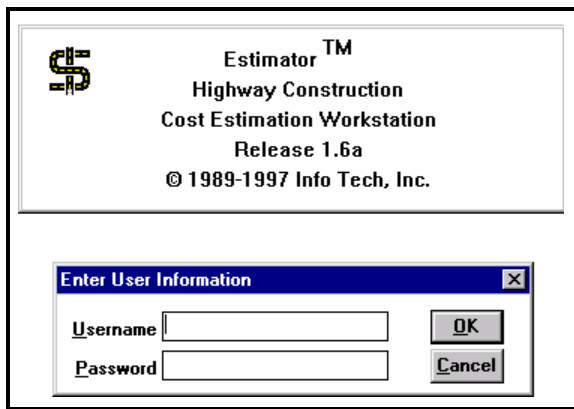


Figure 15-25: Log In to Estimator

Note: you must capitalize the first letter of each in order to get in.

Step Two: Starting a new Estimator Project

Once in you will need to open a catalog of items. There are a couple of selections. Select the catalog based on the units in your project. To do so simply go to File > Open Catalog and select your catalog (Figure 15-26).

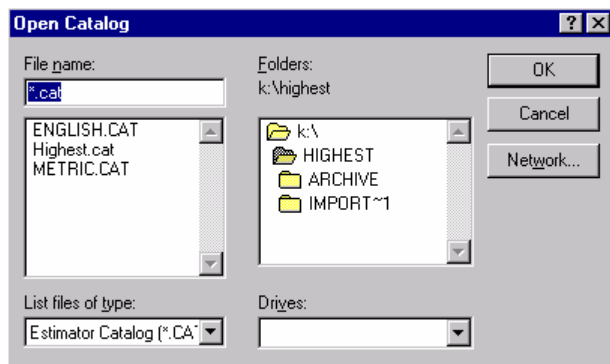


Figure 15-26: Select your Catalog

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Next you will have to either select an existing file or you will have to create a new file. To open an existing file just simple choose **File > Open** and retrieve the file of interest. If it is a new file you will need to do **File > New** and an **Edit Project Header** box (Figure 15-27) will appear and you will need to supply some information about your project.

The 'Edit Project Header' dialog box contains the following fields and controls:

- Project Name:** Text input field.
- Estimator:** Text input field with 'Design' entered.
- Contract Number:** Text input field.
- Date Prepared:** Text input field with '10/20/1999' entered.
- Letting Date:** Text input field.
- Work Type:** Text input field.
- County:** List box with options: Androscoggin, Aroostook, Cumberland, Franklin, Hancock, Kennebec.
- Checked by:** Text input field.
- Date Checked:** Text input field.
- Approved by:** Text input field.
- Date Approved:** Text input field.
- Main Category:** Text input field with '0001' entered.
- Spec Year:** Text input field with '1996' entered.
- Units:** Text input field with 'N/A' entered.
- Archive Project:** Check box.
- Buttons:** OK, Cancel, and Edit.

Figure 15-27: Edit Project Header

The type of information need is as follows:

Project Name (Town Name)

Contract Number (the Pin #)

Letting Date (Construction Begins)

Work Type (SB, LB, etc.)

Select County

Checked By (can be left blank)

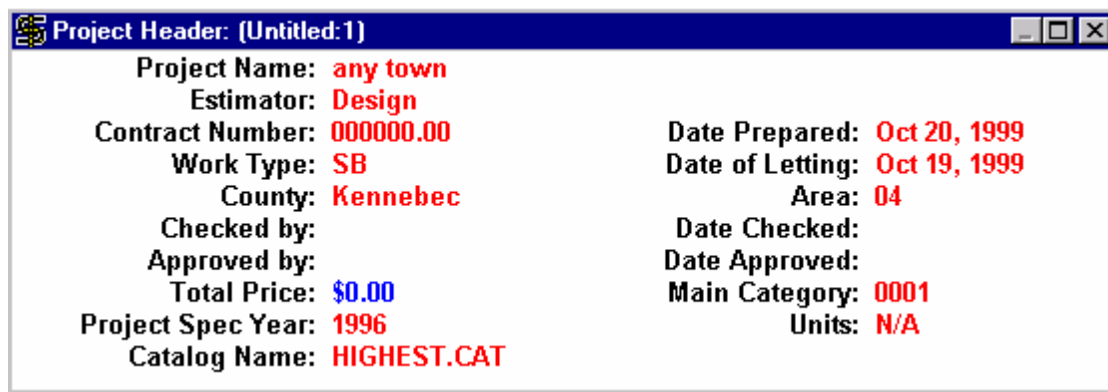
Approved By (can be left blank)

Note: You will find a list of work types on the last page of this document.

Once you have provided the information, click O.K. and you will see the Project Header Box (Figure 15-28) pop up.

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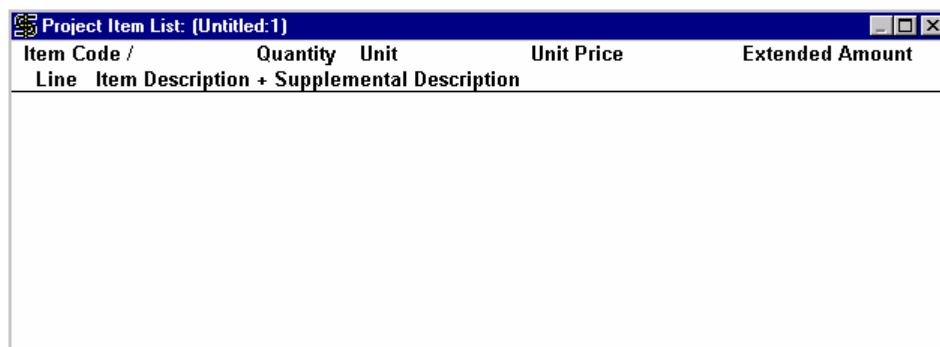
Project Header: (Untitled:1)

Project Name: any town	Date Prepared: Oct 20, 1999
Estimator: Design	Date of Letting: Oct 19, 1999
Contract Number: 000000.00	Area: 04
Work Type: SB	Date Checked:
County: Kennebec	Date Approved:
Checked by:	Main Category: 0001
Approved by:	Units: N/A
Total Price: \$0.00	
Project Spec Year: 1996	
Catalog Name: HIGHEST.CAT	

Figure 15-28: Project Header

Step Three: Adding items to the List

First you will need to double click on the **\$0.00** and you will see another box pop up (Figure 15-29).



Project Item List: (Untitled:1)

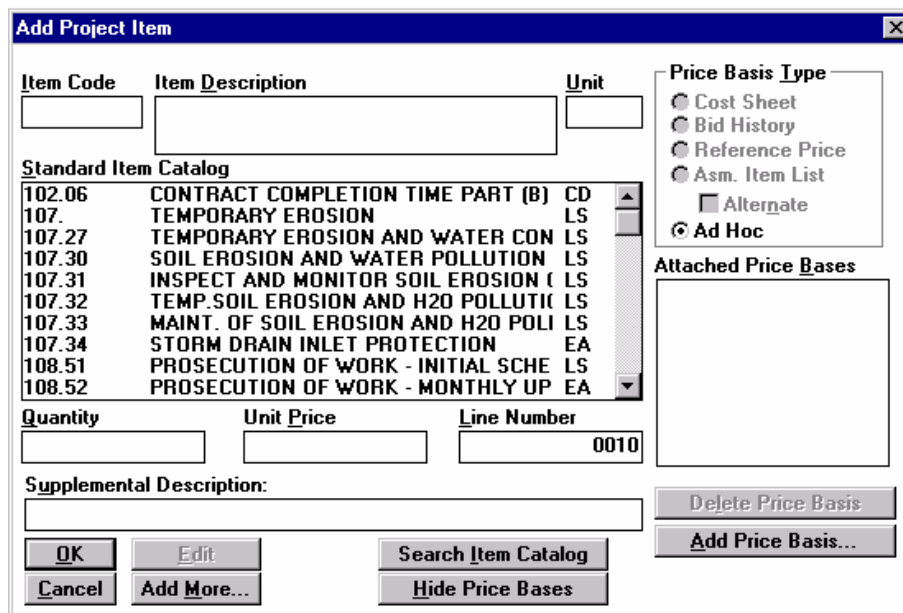
Item Code /	Quantity	Unit	Unit Price	Extended Amount
Line Item Description + Supplemental Description				

Figure 15-29: Empty Project Item List

Next you need to go to the menu at the top and select **Edit > Add** this will open up another box (Figure 15-30) which will allow you to start selecting the items pertaining to the project specified.

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Add Project Item

Item Code: Item Description: Unit:

Standard Item Catalog

102.06	CONTRACT COMPLETION TIME PART (B)	CD
107.	TEMPORARY EROSION	LS
107.27	TEMPORARY EROSION AND WATER CON	LS
107.30	SOIL EROSION AND WATER POLLUTION	LS
107.31	INSPECT AND MONITOR SOIL EROSION (LS
107.32	TEMP.SOIL EROSION AND H2O POLLUTIO	LS
107.33	MAINT. OF SOIL EROSION AND H2O POLI	LS
107.34	STORM DRAIN INLET PROTECTION	EA
108.51	PROSECUTION OF WORK - INITIAL SCHE	LS
108.52	PROSECUTION OF WORK - MONTHLY UP	EA

Price Basis Type:

☐ Cost Sheet
☐ Bid History
☐ Reference Price
☐ Asm. Item List
☐ Alternate
☒ Ad Hoc

Attached Price Bases:

Quantity: Unit Price: Line Number: 0010

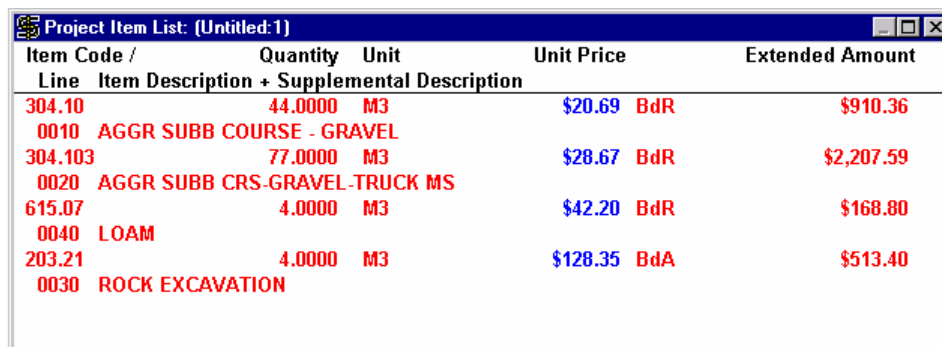
Supplemental Description:

Buttons: OK, Edit, Search Item Catalog, Cancel, Add More..., Hide Price Bases, Delete Price Basis, Add Price Basis...

Figure 15-30: Add Project Item

Once you select an item you will then need to either hit in the Quantity field with your mouse or tab to it, in either case you will need to put a quantity there and then hit **Add More** to continue inputting item numbers and quantities.

When you are done completing your list just hit **O.K.** and **Cancel**, this should then bring you back to the list of items within the **Project Item List** as shown in Figure 15-31.



Item Code /	Quantity	Unit	Unit Price	Extended Amount
Line Item Description + Supplemental Description				
304.10 44.0000 M3			\$20.69 BdR	\$910.36
0010 AGGR SUBB COURSE - GRAVEL				
304.103 77.0000 M3			\$28.67 BdR	\$2,207.59
0020 AGGR SUBB CRS-GRAVEL-TRUCK MS				
615.07 4.0000 M3			\$42.20 BdR	\$168.80
0040 LOAM				
203.21 4.0000 M3			\$128.35 BdA	\$513.40
0030 ROCK EXCAVATION				

Figure 15-31: Project Item List

As you might have noticed that the list is not in numerical order. This is not a problem, you can easily fix this problem by simply going to the menu on top and selecting **Utilities > Sort** and this will bring up another dialog box that gives you numerous ways of sorting the item list. The most common selection would be sorting by *Item Code - Ascending Order* as shown in Figure 15-32.

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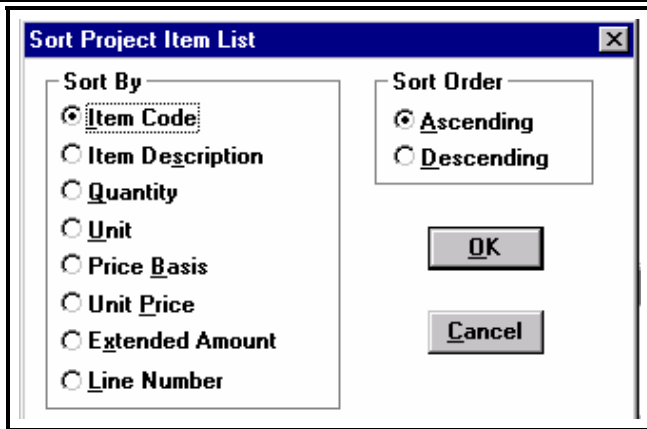


Figure 15-32: Sort Item List

Step Four: Editing Existing Data

It is fairly simple to edit existing *quantities* already in place and *Unit Prices* (?) that may not come out of the history of the item selected. To do this just click on the value you want to change and a box will appear to allow you to edit as shown in Figure 15-33 and Figure 15-34.

Project Item List: (Untitled:1)						
Item Code /	Quantity	Unit	Unit Price		Extended Amount	
Line Item Description + Supplemental Description						
203.21	4.0000	M3	\$128.35	BdA	\$513.40	
0030 ROCK EXCAVATION						
304.10	44.0000	M3	\$20.69	BdR	\$910.36	
0010 AGGR SUBB COURSE - GRAVEL						
304.103	77.0000	M3	\$28.67	BdR	\$2,207.59	
0020 AGGR SUBB CRS-GRAVEL-TRUCK MS						
615.07	4.0000	M3	\$42.20	BdR	\$168.80	
0040 LOAM						
659.10	0.0000	LS	?	AdH	?	
0050 MOBILIZATION						

Figure 15-33: Project Item List

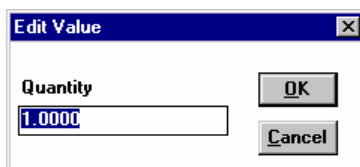


Figure 15-34: Edit Project Item Quantity

Step Five: Printing and Saving

To print go to the menu at the top and select **File > Print** and you should receive a display like Figure 15-35.

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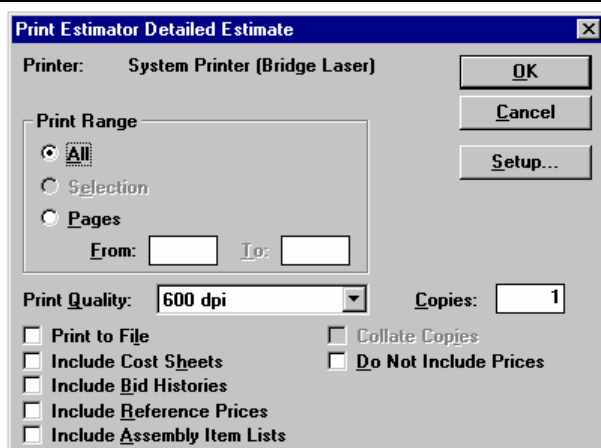


Figure 15-35: Print Estimator Detailed Estimate

You should verify your system printer is correct and you will notice that the default range is **All**, hit **O.K.** and off to the printer it will go.

You also can use this item list for the front of your Estimate Book by checking off the selection for **Do Not Include Prices** and printing the document.

When complete always remember to save your document. The preferred naming convention is typical to our PIN structure. For example **00567890.he**. Also pay attention to the location that the file is being saved to. The process should point to the correct directory automatically, but on a rare occasion things do get messed up. The proper directory structure that the file should be in is :\Highest\00567890.he

Project Work Type Codes

I = Interstate Highway Projects

R = Rural Highway Construction

U = Urban Highway Construction

HOV = Hot Bituminous Overlays

LOV = Light Bituminous Overlays

LB = Large Bridge Construction (15 m or over)

SB = Small Bridge Construction (Incl. Pipes)

BH = Bridge Rehabilitation

SIG = Traffic Signals

LIT = Lighting and Signing

L = Landscape

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Additional Information

People should be aware that if they have an item that does not appear in the catalog selection set that they should notify *Eric Erskine* so that the item can be established into the program.

If you are having difficulty getting access to the program then you will need to speak to the appropriate support person to correct the problem.

FILE TRANSFER USING THE FTP SITE

GENERAL INFORMATION

What is an FTP (File Transfer Protocol) site? It's a secure drive on a computer, protected by a firewall, where files are temporarily stored completely accessible by any outside Internet connection. This allows consultants to do business with us while exchanging large amounts of data directly from computer to computer. Our FTP Internet address is ftp.state.me.us.

Files over 1 Mb cannot be transferred via email. The State's email system stops the transfer of large files due to their size and the systems restraints. It is recommended that files over 1 Mb be transfer to outside sources by using this process.

General Rules of Thumb!

- Send a zip (compressed) file when sending more than one file, or files large in size.
- Use good judgment when naming files. Rather than dumping random files without explicit names to the FTP site, always use naming that will make it easy to identify your files from someone else's. (i.e. 8467topsham.zip)
- Do not create folders on the FTP site. Folders can be created within the outgoing folder, but are impossible to remove, due to protections that are set by BIS. Only *they* have privileges to remove them, regardless of who created them.
- Clean up you own mess! BIS does house cleaning only when the server is too full to function. Delete incoming files after you have downloaded them. Tell the consultant/recipient that they have permissions to delete the files you posted after they download them.

USING FTP

Step One: Open FTP Software

Click your **Start** button and go to **Programs>WS_FTP LE>WS_FTP LE** or double click the icon (Figure 15-36) on your desktop.



Figure 15-36: FTP Icon

When the program opens you should see a **Session Properties** dialog. Press **OK** (Figure 15-37) to log into the FTP site.

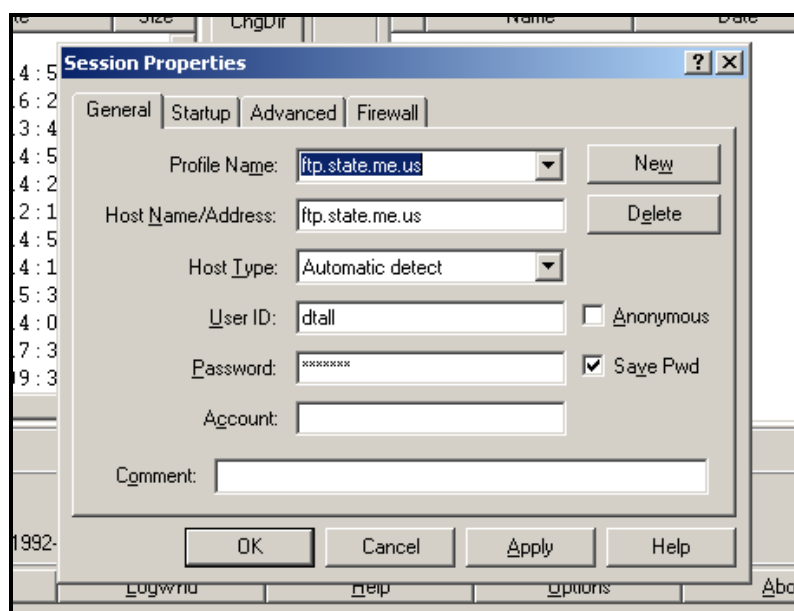


Figure 15-37: Session Properties

Step Two: Browse and Push Files to FTP

On the right side (**Remote Site**), you should see the folder list, (incoming, outgoing, etc.) and on the left (**Local System**), see a list of available drives. These are the drives you currently have mapped to your computer.

We have a folder for all **outgoing** files and a folder for all **incoming** files. Open the appropriate folder for the action you are taking.

Scroll and browse to the drive and folder where the file exists that requires transferring (i.e. y:\pin\8467\00\highway\consultant\topsham-design.zip). When the contents of the folder are displayed in the left section of the dialog area, highlight the desired file and click on the directional arrow (Figure 15-38) between the two view areas.

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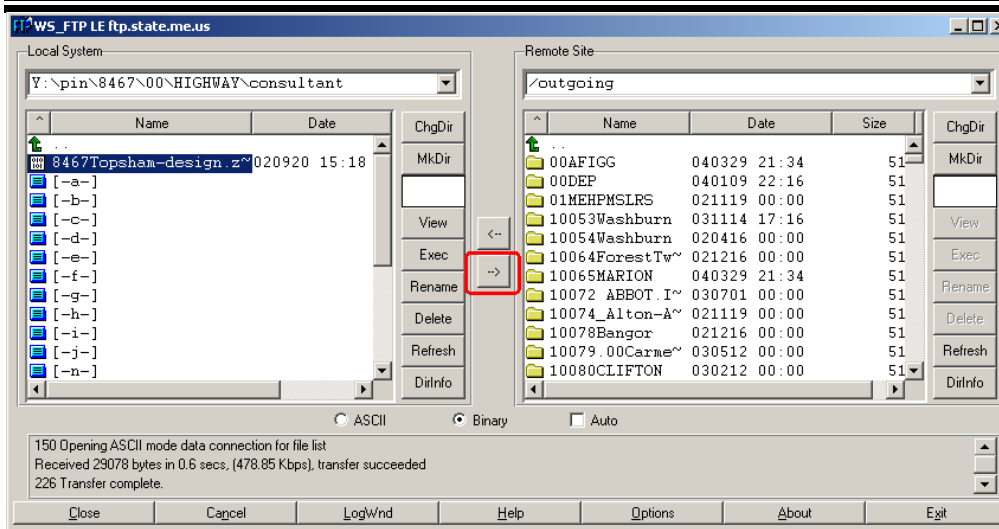


Figure 15-38: WS_FTP LE ftp.state.me.us

Use the same techniques to copy files from the incoming folder on the FTP site to a drive letter on the network or to your local hard drive.

SENDING LINKS IN EMAIL MESSAGES (OPTIONAL)

We can send a hyperlink in an email document that points directly to the file you posted, starting the download on their end automatically.

Or, we can also notify clients when a file is posted and provide them with the HOST (ftp.state.me.us) with the user (anonymous) and the password (anonymous). Then, by using a normal Internet browser or some type of FTP software, they can connect to our site and find the file and download it manually.

Step One: Type address to FTP in email

Type the complete address path and file name, within the body of an email message area and the recipient can click the link and start downloading to a specified location on their computer.

Here is an example: `ftp.state.me.us/outgoing/8467topsham.zip`.

- ♪ Use forward slashes between folders and never use spaces in the file names. Use lowercase for the ftp address and outgoing folder. Match the case of the file name you created.

Step Two: Add Subject Line and Send

Add the filename in the Subject line of your email. Provide a brief description of files attached. Click **Send**.

USING OCE JOB DIRECTOR

BRIEF DESCRIPTION

The OCE Job Director is software that enhances the capabilities of plotting plan packages to the OCE 9800. The major advantages to using Job Director as opposed to sending them directly through MicroStation's Batch Printing Utility, is that the user controls how many copies are necessary, distribution lists, operator notes, rotation, sorting, stamping and the order in which the pages are plotted. This method of plotting saves time and effort on both the user and the reproduction worker. Hand sorting originals and hand feeding plans for multiple sets are going to be a thing of the past. If all files are electronic, no handling is necessary.

The Job Director has many capabilities, however, this document is intended to instruct the user how to setup and use the Job Director to send MicroStation drawings to OCE 9800. For additional instructions, please resort to the Job Director's Help documents.

JOB DIRECTOR INSTALLATION**Step One**

Open Windows Explorer, browse to the **W:\MDOT MicroStation Utilities\Job Director Install** folder and double click the **JD3332.exe** file. You will be prompted to unzip the files, browse to your **C:\TEMP** folder. Click **Unzip**. After successful extracting the files, click **Close**.

Step Two

Browse to your **C:\TEMP\disk1** folder and double click the **setup.exe** file to execute the install program. Follow the prompts for the installation process.

MAPPING A NETWORK DRIVE

Step One

Using Windows Explorer, go to **Tools>Map Network Drive**. In the Drive field, pick “**O**” if the drive is available. If not, another will do just fine.

Step Two

Select “**Reconnect at Login**”.

Step Three

In the Share Directories window, scroll to the **\\DT00DTA1PCFA102** server. Click to view shares on this computer.

Step Four

Select **D DRIVE** and **ocers_q** and hit **OK**. Click **Finish** and you should see another explorer window of the new mapped drive pop up for you. Close this window.

CONFIGURE JOB DIRECTOR

Step One: Open Job Director

Go to **Start>Programs>OCE Repro Station>Job Director**. The first time opening Job Director you will be prompted to place a **User: (Your Name)** and **Company: (MDOT)**, click **OK** when finished. Close the **Untitled1** job ticket.

Step Two: Adjusting Configuration

In the Job Director's Main Menu, select **Configure>Repro Station Queue**. Enter drive that you mapped (i.e. **O:**)

Select **Configure>Units** and set the units to **inch**.

Select **Configure>Media Sizes**. Move 36" to the first position using the move up or down arrows. Move 11" to the second position using the move up or down arrows.

Select **Configure>File Types**. Automatic should be at the top of the listing. If it isn't then move it to the top of the list.

Step Three: Default Settings

From the Main Menu, select **Defaults>User and Account**. Place your name in the User field. Leave the "Account" and "Job Name" fields empty.

Select **Defaults>File Type>File Type** and set to **Automatic**.

Set **Pen** settings to **As in File**.

Set **Rotation and Mirror** to **Landscape**.

Set the **Size, Zoom and Media** settings to look like the dialog in figure below (Figure 15-39).

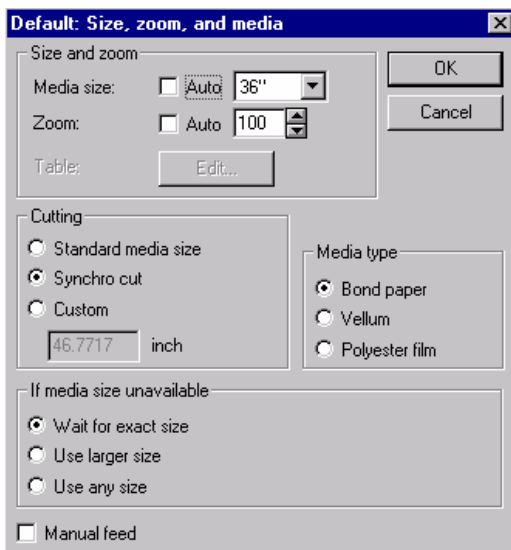


Figure 15-39: Default: Size, zoom, and media

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The **Copies, sorting and banner page** dialog should look like the one below (Figure 15-40).

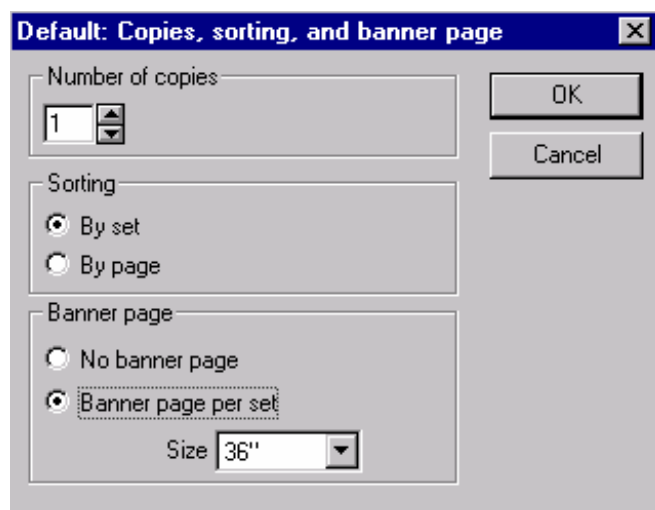


Figure 15-40: Default: Copies, sorting, and banner page

There is no need to adjust **Shifting, Stamping, Edge Correction, Finishing, Distribution or Operator Notes**. Some of these settings will be set and saved in each individual Job Ticket.

CREATING MICROSTATION PLOT FILES

Step One: Start MicroStation

Double-click your MicroStation icon.

Step Two: Find you PIN number

Click the *Project* pull-down and click on your PIN.

Step Three: Open ###_Plan#.dgn

In your list of .dgn files in the \Your Workgroup\MSTA folder (i.e. \Highway\MSTA), you should see files named ###_HDPlan#.dgn (i.e. 001_HDPlan1.dgn). Select any of these files and click OK to open it.

❗ *If there are no files of this name, the plan sheets may have not been created yet. Refer to page 5-3 for instruction on creating plan sheets.*

Step Four: Batch Printing - Open Or Create a New Batch Job

Overview

Batch printing is normally used to send plots directly to a plotter, however it can also be used to create a plot file (.plt) that contains all of the information necessary for the plotter to reproduce the drawing.

The general use and guidelines of using the Batch Print utility is exactly the same. In fact, you can use preexisting saved “job” files to produce your plot files.

✓ *Refer to Batch Printing on page 1-36 for complete instructions.*

Starting the Batch Print Utility

Go to **File>Batch Print/Plot (DOT)**. If there are any existing Batch Jobs, you can select them now, otherwise press cancel and create one of your own.

Changing Plot Driver

Click on *Printer* in the “Specification Controlling Printing” section of the dialog. Click the green icon or select **Specifications>Select...** from the menu pull down. Select **OCE98002FILE** (Figure 15-41).

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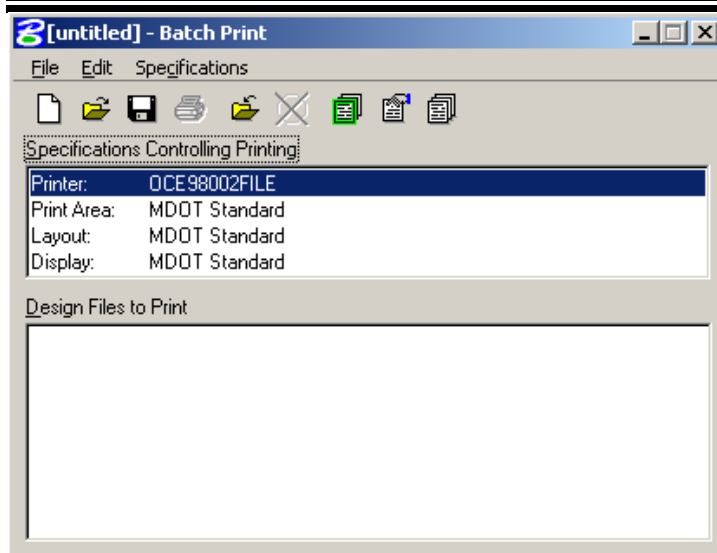


Figure 15-41: Batch Print

- ♪ The **Print Area:** and **Layout:** do not need to be changed. They will stay MDOT Standard for U.S. Customary (oce for metric). No change is necessary to the display selection for all of your printing needs with the exception of printing your Title sheet for the Urban & Arterial Program. You will need to change the display to Highway Title Sheet (title_sheet for metric) and print to file just the 001_Title.dgn, then set the display back to MDOT Standard for U.S. Customary projects (oce for metric) and print the rest of the job file.

Adding Files

Select **Edit>Add Files** from the menu. Select all of your drawings that begin with the three numbers and an underscore. (i.e. ###_). These are the drawings that will be included in the plan set.

- ① *You can add all of the drawings in your plan set into the same Batch Print job file.*

Creating the PLOT Files

Creating the files are as easy as Highlighting the files you wish to plot and clicking the **print** icon. By default, the plot files are going to be placed into your group's MSTA directory. They will be named exactly the same as your design files, except for the **.plt or .000** extension.

Organizing Files

You may want to create a folder called **Plot Files** under the MSTA directory for all of your plot files. Cut and Paste these files into the new folder. There will be one file for every plot you are sending.

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!!Updating Files!!

When MicroStation creates a plot file, it takes a snapshot of the file at its present state. *You must create a new plot file when the drawing has changed for the plot file to reflect the changes.* Use the modified date to monitor changes to your drawings.

USING JOB DIRECTOR

Overview

Job Director can handle a variety of file formats, but we will be using a plot file (.plt or .000) format created from a MicroStation .dgn file.

❗ *Job Director does not handle .dgn files directly. We create .plt files using MicroStation's Batch Print Utility.*

Step One: Adding Files

Plot files can be added by clicking the **Add** button, and browsing to the desired directory, or by dragging files from Windows Explorer into the files area of the dialog. Files can be added, replaced or removed from a job ticket at any time (Figure 15-42).

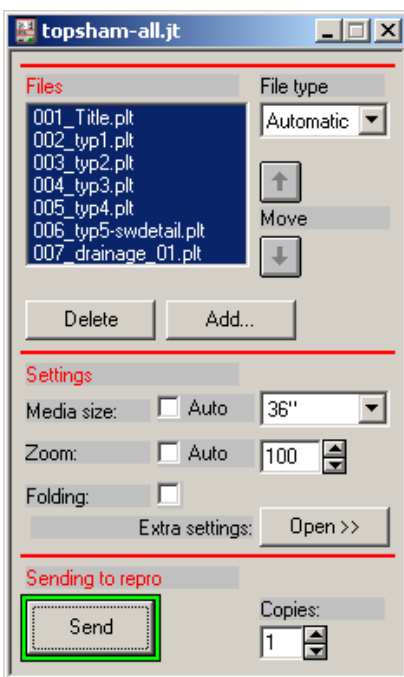


Figure 15-42: Job Ticket

Step Two: Arranging your Plot Files

Highlight a file or files in **Files** area of the dialog and use the move up or down arrow to place the files in order.

🎵 When adding files, it is normal for them to need some arranging after they are added.

Step Three: Configure Plot Settings (Full Size)

If sending full size plan sheets, your default settings should be OK.

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Step Three: Configure Plot Settings (Half Size)

When sending half size plans to the plotter, you have to adjust some of your settings. Highlight all of the files.

Set **Media Size** to **11"** and **Zoom** to **50** (Figure 15-43).

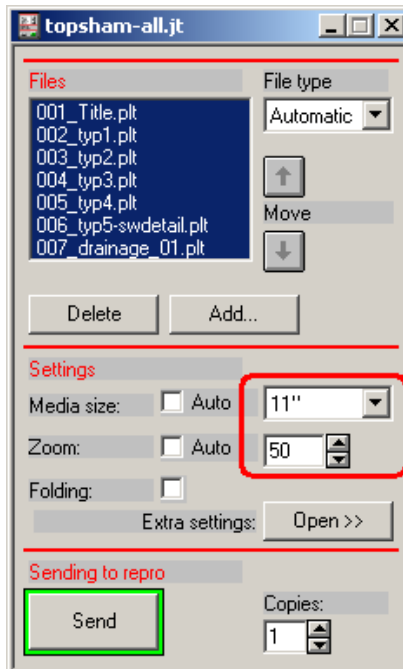


Figure 15-43: Halfsize Settings

Select the **Extra settings:Open>>** to set the next couple of settings. From the pull down on the right side, select **Rotation and Mirror** and set it to **0** degrees (Figure 15-44).

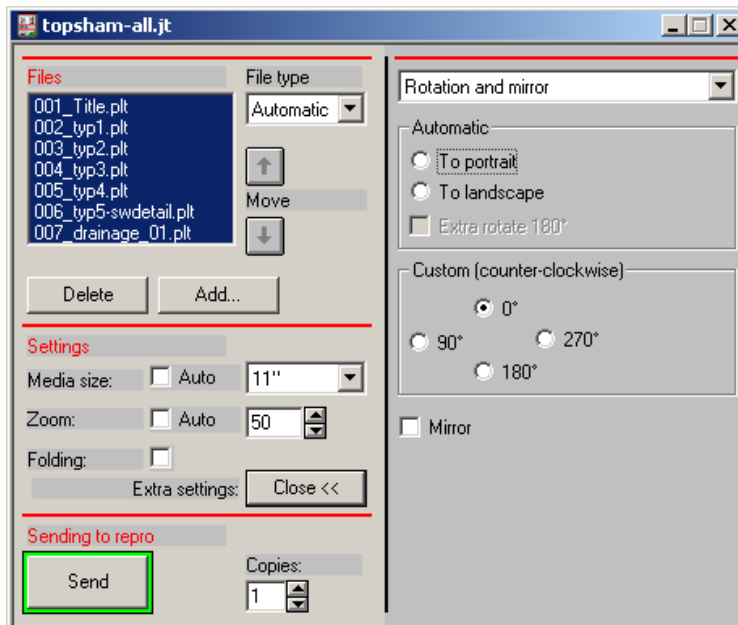


Figure 15-44: Rotation and Mirror

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Select **Size, Zoom and Media** and set the **Cutting** to **Custom** and place the value of **12** in the **inch** box, also set **If media size unavailable** to **Use any size** (Figure 15-45).

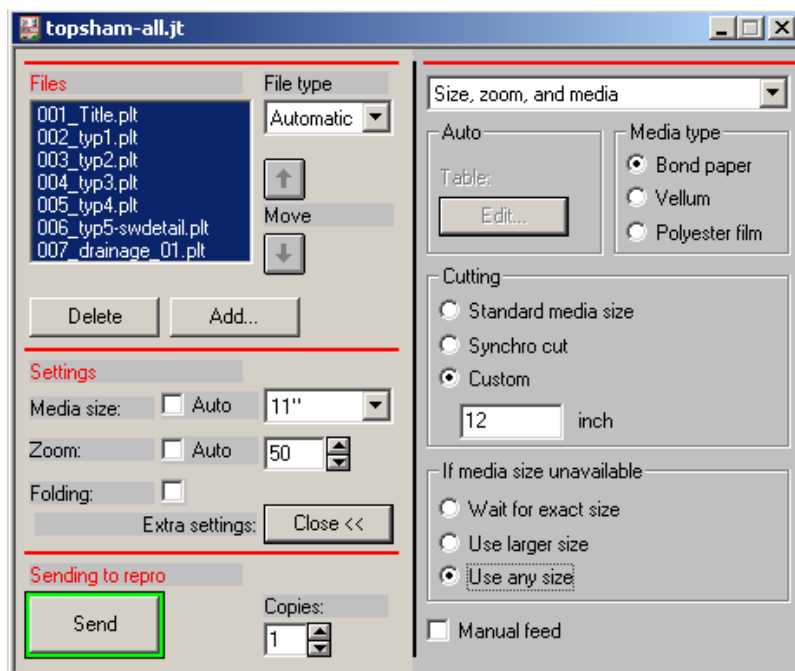


Figure 15-45: Size, zoom, and media

Select **Close<<** to minimize your dialog.

Step Four: Sending You Job Ticket

Once the files are in correct order, and configured properly, click the **SEND** button.

Step Eight: Saving Your Ticket

From the main menu, select **File>Save As...** and save the job ticket in your projects MSTA directory or the **Plot files** folder you created under MSTA.

USING AUTO TRACK – TURNING RADIUS SOFTWARE

AutoTrack is an add-on program for MicroStation, which is used for evaluating a design for turning movements of trucks, and any other large vehicles. We have purchased a 2 user network license, which means that only two users can be running AutoTrack at the same time on our network. Depending on the usefulness and demand for the product, we may increase the number of licenses in the future. AutoTrack must be separately installed on the PC of each user that is going to run it.

mdot MicroStation Using Additional Software

AUTO TRACK INSTALLATION

Introduction

The AutoTrack licensing system has been set up on the **Dot0dta1fscadd2** server. The installation steps below set up a client PC that will look to that server for its license. To avoid problems with our own customized MicroStation interface, we prefer not to let the AutoTrack install procedure “configure” the CAD system for us. Therefore, please follow these instructions carefully.

Step One: Browse to Folder

Using **Windows Explorer**, browse to the **AutoTrack** folder on our W: drive.

Step Two: Launch Setup

Double-click on **atr502.exe** to launch the installation process.

You will be asked if you want to install a Full copy. Choose **Yes**.

Next, click **Yes** to agree to the license terms.

When you get to the Setup Type screen, choose **Custom**.

Click **Next** through to the last of a set of 5 pages, where you should see MicroStation 8.1 checked as the last item in the list, with the path to the USTATION.EXE file listed to the right.

Click **Next** to confirm the installation path.

Click **Next** again to confirm the selected components, and **Next** once more to install support for Pre-v5 vehicle libraries.

Step Three: Adjust IP Address

You should now be at the **IP Addresses** page. In the first line, enter the address of our **Dot0dta1fscadd2** server, which is **10 10 19 22**. Click **Next** once more.

Step Four: CADD Configuration

You should now be at the **Configuration of CADD Systems** page. **Uncheck both** of the options on this page and click **Next** once more.

Click **Next** again to confirm the default program folder.

Step Five: Finishing up

On the next page, you can skip the Readme file, but you should do the **Hardware Lock Wizard**. (If you skip this step, it will have to be done later when AutoTrack is first run.)

You will need to reboot the PC after the procedure completes.

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Software**

- ① *Do not attempt to upgrade/download a newer version of the software. Our server license is relative to the version we are using at any given time. We will notify you in the event of an upgrade that affects us.*

USING AUTO TRACK (BASICS)

Introduction

We have purchased a 2 user network license. Only two users can be running AutoTrack at the same time. We've added menu items to load and unload AutoTrack during a MicroStation session. Use AutoTrack then unload it to release the license. Closing the file unloads it also.

Open MicroStation

Always open MicroStation from your desktop icon or from the *Start* menu. Select your project from the *Project* pull down. Open any file in your list of drawings.

Create a New Drawing

Use **File>Make Sheetz** to create a new drawing with *no prefix* called **Turning Radius**.

✓ *Refer to 1-12 for more information on the Make Sheetz process.*

♪ Using a new drawing to design your turning movements keeps this information separate from the files that another unit references by default.

Load AutoTrack

Start AutoTrack by selecting **Utilities>AutoTrack>Load AutoTrack**.

The Welcome dialog (Figure 15-46) should open as well as a new tool bar for AutoTrack (Figure 15-47) and an additional menu item called **Applications**.

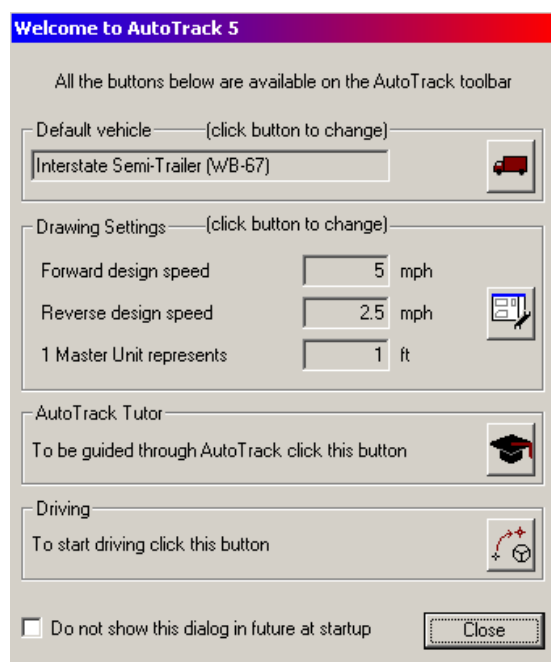
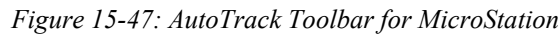


Figure 15-46: AutoTrack 5 Welcome dialog

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It isn't necessary to select a default vehicle (Figure 15-46). You will be prompted for a vehicle when you hit any of the *Drive* options. If you do set a default, you will have an opportunity to change it after selecting a drive option.

You should always verify your *Drawing Settings* (Figure 15-46) during each session to set your units for AutoTrack, especially since we are producing both metric and U.S. Customary projects.

Click on the AutoTrack Tutor icon (Figure 15-46) for guidance in using AutoTrack for the first time. It will provide a help screen that is relative to the dialog you are on.

The manual and tutor will be your best friend through the first few uses. Contact CADD Support for assistance.

VIEW AN AUTO TRACK DEMO (OPTIONAL)

Step One: Browse to Folder

Using **Windows Explorer**, browse to the **AutoTrack\Tutorial Demo** folder on our W: drive.

Step Two: Install AutoTrack Demo

Double click **atr5demo.exe** to start the installation process. Read and follow the prompts.

Step Three: View at Your Leisure

The demo is a good rundown of AutoTrack's functionality and multiple settings. It's a good idea to watch this 40 minute demonstration.

USING AUTO TRACK'S MANUAL AND HELP

AutoTrack On-Line Manual

An On-line Manual (in PDF format) can be launched independently from MicroStation by selecting **Start>Programs>AutoTrack 5>On-Line Manual**.

♪ The Table of Contents is linked to the rest of the document. The PDF document is fully searchable also.

❗ *Do not attempt use the PDF installation instructions. Our installation instructions are specific to our workflow and licensing.*

AutoTrack On-Line Help and HTML Help

The two types of helps are available however are identical in content. HTML help appears to be easier to use (this is only one user's preference). Either "Help" can be launched independently from MicroStation by selecting **Start>Programs>AutoTrack 5>On-Line Help (or HTML Help)**.